

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-021978**Date Inspected:** 12-Mar-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 1900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** See Below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG**Summary of Items Observed:**

CWI Inspector: Mr. Bao Qian

On this date CALTRANS OSM Quality Assurance (QA) Inspector, Mr. Paul Dawson, arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai China, for the purpose of monitoring welding and fabrication of the San Francisco / Oakland Bay Bridge (SFOBB) components. This QA Inspector observed the following:

OBG Bay 14.

This QA Inspector observed ZPMC welder Mr. Fang Xinyou, stencil 037748 used shielded metal arc welding procedure WPS-B-P-2214-FCM-1 to make OBG segment 13AE weld SEG3007AH-007. This QA Inspector measured a welding current of approximately 180 amps and Mr. Fang Xinyou appeared to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Li Guangzu, stencil 069493 used shielded metal arc welding procedure WPS-B-P-2214-FCM-1 to make OBG segment 13AE weld SEG3007AH-007. This QA Inspector measured a welding current of approximately 185 amps and Mr. Li Guangzu appeared to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Kuai Wenshan, stencil 054013 used shielded metal arc welding procedure WPS-345-SMAW-4G(4F)-FCM-Repair-1 to make repairs of weld OBG segment 14E weld

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SEG3019Z-006. ZPMC QC informed this QA Inspector that weld repair document B-WR-20369 documents this weld repair. This QA Inspector measured a welding current of approximately 190 amps, base material was preheated with an electrical heater and Mr. Kuai Wenshan appeared to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Zhao Guanglin, stencil 044779 used shielded metal arc welding procedure specification WPS-345-SMAW-4G(4F)-FCM-Repair-1 to make OBG segment 14E repair weld SEG3019Z-006. ZPMC QC informed this QA Inspector that weld repair document B-WR-20369 documents this weld repair. This QA Inspector observed a welding current of approximately 195 amps, the base materials were preheated with an electrical heater and Mr. Zhao Guanglin appeared to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Wang Zhengbin, stencil 216086 used shielded metal arc welding procedure WPS-345-SMAW-2G(2F)-FCM-Repair-1 to make OBG segment 14E weld SEG3019D-323. This QA Inspector observed a welding current of approximately 185 amps the base materials were preheated with an electrical heater and Mr. Wang Zhengbin appeared to be certified to make these welds. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Wu Wanyong stencil 050242 used flux cored welding procedure WPS-B-T-2232-ESAB to make OBG segment 13AE weld SEG3007AH-030. This QA Inspector measured a welding current of approximately 270 amps, and 31.1 volts. This QA Inspector observed the maximum welding voltage listed in the welding procedure specification is 26.6 volts and Mr. Wu Wanyong had a welding current that was approximately 4.5 volts above this maximum limit. This QA Inspector showed ABF CWI Mr. Bao Qian the welding meter and he had the welding machine adjusted to have a voltage of approximately 26.0 volts. Following adjustment of the welding machine, items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Zhu Jibo, stencil 055564 used flux cored welding procedure WPS-B-T-2232-ESAB to make OBG segment 13AE weld SEG3007AH-030. This QA Inspector measured a welding current of approximately 265 amps, and 30.0 volts. This QA Inspector observed the maximum welding voltage listed in the welding procedure specification is 26.6 volts and Mr. Zhu Jibo had a welding current that was approximately 3.4 volts above this maximum limit. This QA Inspector showed ABF CWI Mr. Bao Qian the welding meter and he had the welding machine adjusted to have a voltage of approximately 26.0 volts. Following adjustment of the welding machine, items observed on this date appeared to generally comply with applicable contract documents. See the photograph below for additional information.

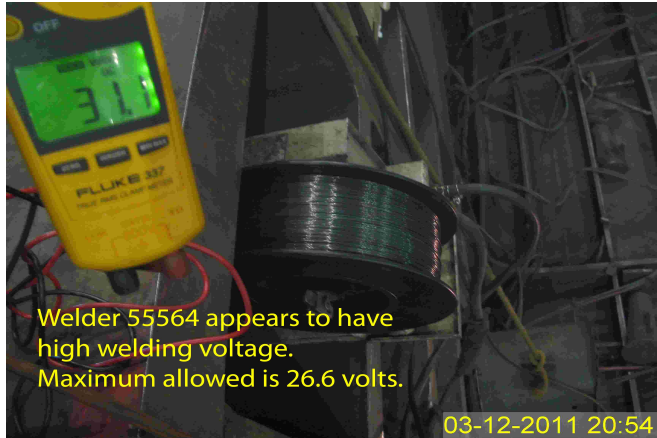
Segment 13AW

This QA Inspector performed random document review of "Team China request for information (TC-RFI)" document #TC-RFI-0054R0. This RFI addresses OBG segment 13AW west bound top east corner of the east saddle grillage connector plate. This QA Inspector performed random visual inspections of the plate listed in the RFI and observed the grillage plate appears to have been chamfered as stipulated in the RFI. ZPMC has not drilled the bolt holes or ground the outside corner of this grillage plate. This QA Inspector took random photographs of some of this plate and copies of the photographs and other related information have been placed in

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“TC-RFI Documentation” folder located on Team China common Z drive pending engineering review. See the photographs below for additional information.



Summary of Conversations:

See Above.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact James Devey +8615000026784, who represents the Office of Structural Materials for your project.

Inspected By: Dawson,Paul

Quality Assurance Inspector

Reviewed By: Riley,Ken

QA Reviewer